## **ABSTRACT**

## COMPOSITIONS AND METHODS FOR ARRAY-BASED GENOMIC NUCLEIC ACID ANALYSIS OF BIOLOGICAL MOLECULES

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The invention provides biological molecules modified by reaction with a compound having the formula:  $R_1 - X - R_2$ , wherein  $R_1$  is a cyclic ether group or an amino group,  $R_2$  is an alkoxysilane group and X is a moiety chemically suitable for linking the cyclic ether group or the amino group to the alkoxysilane group. The invention also provides arrays, or "biochips," comprising these modified biological molecules. Also provided are methods for making and using these compositions.

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